

Applicants: Yuti Chernajovsky et al.

Serial No.: 09/285,531

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Page 2

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1.-13. (Cancelled)

14. (Previously Presented) An isolated DNA encoding a receptor molecule which binds to tumor necrosis factor comprising two extracellular domains of tumor necrosis factor receptors linked to a polypeptide linker, wherein said polypeptide linker is covalently bonded to said extracellular domains via peptide bonds, wherein the receptor molecule is capable of binding to a tumor necrosis factor trimer in a stoichiometric ratio of almost 1:1, and wherein the DNA comprises the nucleic acid sequence set forth in SEQ ID NO:1.

15.-27. (Cancelled)

28. (Previously Presented) An isolated DNA encoding a receptor molecule which binds to tumor necrosis factor comprising two extracellular domains of tumor necrosis factor receptors linked to a polypeptide linker, wherein said polypeptide linker is covalently bonded to said extracellular domains via peptide bonds, wherein the receptor molecule is capable of binding to a tumor necrosis

Applicants: Yuti Chernajovsky et al.

Serial No.: 09/285,531

Filed: April 2, 1999

Page 3

factor trimer in a stoichiometric ratio of almost 1:1, and wherein the polypeptide comprises consecutive amino acids having the amino acid sequence set forth in SEQ ID NO:2.

29. (Previously Presented) A receptor molecule which binds to tumor necrosis factor comprising two extracellular domains of tumor necrosis factor receptors linked to a polypeptide linker, wherein the molecule comprises the amino acid sequence of SEQ ID NO:2.

30. (Previously Presented) A method of making a construct which expresses extracellular domains of two tumor necrosis factor receptors linked to a polypeptide linker, comprising the steps of:

- a) obtaining a first vector which expresses an extracellular domain of a first tumor necrosis factor receptor and a signal peptide of a secreted protein;
- b) obtaining a second vector which expresses an extracellular domain of a second tumor necrosis factor receptor; and
- c) ligating the first vector of (a) to the second vector of (b) using a coding sequence for a polypeptide linker so that the first vector of (a) is linked to the second vector of (b) using the coding sequence for the polypeptide linker

Applicants: Yuti Chernajovsky et al.

Serial No.: 09/285,531

Filed: April 2, 1999

Page 4

resulting in a construct which expresses the extracellular domain of the first tumor necrosis factor receptor and the extracellular domain of the second tumor necrosis factor receptor linked using the polypeptide linker, wherein the construct expresses a receptor molecule comprising the amino acid sequence of SEQ ID NO:2.

31. (Cancelled)

32. (Currently Amended) ~~A-cell~~ An isolated cell which expresses a receptor molecule encoded by the DNA having a nucleic acid sequence comprising the nucleic acid sequence set forth in SEQ ID NO:1.

33. (Currently Amended) A method of inhibiting the biological activity of tumor necrosis factor comprising administering to a subject a TNF-inhibiting amount of an isolated receptor molecule, which receptor molecule is encoded a ~~receptor molecule encoded~~ by the DNA of Claim 28.

34. (Currently Amended) A method of treating a tumor necrosis factor-related disease in a subject in need thereof comprising administering to the subject a tumor necrosis factor-inhibiting amount of an isolated receptor molecule, which receptor molecule is encoded a ~~receptor molecule encoded~~ by the DNA of Claim 28.

Applicants: Yuti Chernajovsky et al.

Serial No.: 09/285,531

Filed: April 2, 1999

Page 5

35. (Previously Presented) The method of Claim 34, wherein the tumor necrosis factor-related disease is selected from the group consisting of: an autoimmune disease, an inflammatory bowel disease, a bacterial infection, a viral infection, a parasitic infection, a malignancy, and a neurodegenerative disease.
36. (Previously Presented) The method of Claim 35, wherein the tumor necrosis factor-related disease is selected from the group consisting of: rheumatoid arthritis, septic shock, cerebral malaria, inflammatory bowel disease, multiple sclerosis, allograft rejection, host versus graft disease, neoplastic pathology and endotoxemic response.
37. (Previously Presented) The method of Claim 34, wherein the tumor necrosis factor-related disease is rheumatoid arthritis.